REMARKS

Claims 1-10, 20 and 22 are currently pending in the application. Claims 6-9 have been withdrawn from consideration by the Examiner. Claims 1-9 are amended. The amendments find support in the specification and are discussed in the relevant sections below. No new matter is added.

Restriction

Applicants appreciate Examiner's rejoining claim 5 with the claims of Group 1.

Claim Rejections – 35 U.S.C. § 101

Claims 1-5 and 20 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter.

Applicant have amended claims 1-5 to more clearly characterize the claimed poplypeptides as isolated by inserting the term "isolated" immediately before the first recitation of the term "polypeptide" in each of these five claims, as suggested by the Examiner. Applicants respectfully request reconsideration and withdrawal of the rejection.

102(b) art

Claims 1-5, 10, 20 and 22 are rejected under 102 (b) as being anticipated by Nagpal et al. (J. Invest. Dermatol. 109:91-95, (1997)). Applicants respectfully traverse.

It is black letter law that anticipation requires that the purported prior art reference disclose each and every limitation of the claim. *Atlas Powder Company et al. v. IRECO, Incorporated et al.*, 190 F.3d 1342, 1347 (Fed. Cir. 1999).

Nagpal et al. do not teach a polypeptide comprising all the limitations of the polypeptides instantly claimed. Specifically Nagpal et al does not teach a polypeptide that binds specifically to a chemerinR polypeptide, as required by claim 1 and its dependent claims.

Though the 163 amino acid human Chemerin precursor polypeptide taught by Nagpal et al. comprises SEQ ID NO:61, i.e. the elected species, the referenced polypeptide does not bind specifically to a chemerinR polypeptide, as required by claim 1 and its dependent claims.

As disclosed herein, human chemerin is encoded by the Tazarotene-induced Gene 2, (TIG2), and is synthesized as a 163 amino acid precursor molecule (SEQ ID NO:8) that contains a hydrophobic 20 amino acid N-terminal sequence prosegment and a six amino acid C-terminal prosegment. During processing of the precursor molecule, both its N-terminal residue 20 amino acid hydrophobic segment and its C-terminal six residues are by proteolytically cleaved, giving rise to a Chemerin (SEQ ID NO:14), a monomeric bioactive molecule that binds to the G-protein coupled receptor ChemR23.

The claimed binding bioactivity is concentrated in the nine residues which precede the six amino acid C-terminal prosegment of the human chemerin precursor (SEQ ID NO:8). These nine residues preceding the six amino acid C-terminal prosegment have an amino acid sequence of YFPGQFAFS (SEQ ID NO:61), the elected species. The presence of the six amino acid C-terminal prosegment blocks the claimed binding bioactivity. Therefore, the presence of the six amino acid C-terminal prosegment in the 163 amino acid human Chemerin precursor polypeptide (SEQ ID NO:8) taught by Nagpal et al. precludes its ability to meet the binding activity required by the instant claims.

Thus, Nagpal et al.'s teaching of the human chemerin precursor polypeptide is not anticipatory because the referenced polypeptide does not bind specifically to a chemerinR polypeptide, as required by claim 1 and its dependent claims. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection.

102(e) art

Claims 1-5, 10, 20 and 22 are rejected under 102 (e) as being anticipated by US2005/0084936A1 ('936). Applicants respectfully traverse.

Applicants respectfully traverse.

It is black letter law that anticipation requires that the purported prior art reference disclose each and every limitation of the claim. *Atlas Powder Company et al. v. IRECO, Incorporated et al.*, 190 F.3d 1342, 1347 (Fed. Cir. 1999).

'936 does not teach a polypeptide comprising all the limitations of the polypeptides instantly claimed. Specifically '936 does not teach a polypeptide that binds specifically to a chemerinR polypeptide, as required by claim 1 and its dependent claims.

Though the 163 amino acid human Chemerin precursor polypeptide disclosed by '936 comprises instant SEQ ID NO:61, i.e. the elected species, the referenced polypeptide does not bind specifically to a chemerinR polypeptide, as required by claim 1 and its dependent claims.

As disclosed herein, human chemerin (encoded by the Tazarotene-induced Gene 2, (TIG2)), is synthesized as a 163 amino acid precursor molecule (SEQ ID NO:8) that contains a hydrophobic 20 amino acid N-terminal sequence prosegment and a six amino acid C-terminal prosegment. During processing of the precursor molecule, both its N-terminal residue 20 amino acid hydrophobic segment and its C-terminal six residues are proteolytically cleaved, giving rise to Chemerin (SEQ ID NO:14), a monomeric bioactive molecule that binds to the G-protein coupled receptor ChemR23.

The claimed binding bioactivity is concentrated in the nine residues which precede the six amino acid C-terminal prosegment of the human chemerin precursor (SEQ ID NO:8). These nine residues preceding the six amino acid C-terminal prosegment have an amino acid sequence of YFPGQFAFS (SEQ ID NO:61), the elected species. The presence of the six amino acid C-terminal prosegment blocks the claimed binding bioactivity. Therefore, the presence of the six amino acid C-terminal prosegment in the 163 amino acid human Chemerin precursor polypeptide taught by '936 precludes its ability to meet the binding activity required by the instant claims.

Thus, '936's teaching of the human chemerin precursor polypeptide is not anticipatory because the referenced polypeptide does not bind specifically to a chemerinR polypeptide, as required by claim 1 and its dependent claims. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection.

Conclusion

In the event that no further art is applied to the instant claims by the Examiner, Applicants respectfully request that the search be extended to the non elected species. Applicants contend that a search of consensus sequence SEQ ID NO:94, recited in claim 1, would encompass these nonelected species. The generic peptide of SEQ ID NO:94 is a consensus sequence derived from chemerin which confers the claimed bioactivity. Each subgenus of peptides further limits the choice of amino acids at specified residues in the consensus sequence recited in claim 1. Therefore, a search of the consensus sequence recited in claim 1 should provide for the peptides recited in the claims of ALL the restriction groups.

Applicant submits that all claims are allowable as written and respectfully request early favorable action by the Examiner. If the Examiner believes that a telephone conversation with Applicant's attorney/agent would expedite prosecution of this application, the Examiner is cordially invited to call the undersigned attorney/agent of record.

Respectfully submitted,

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